REMARKS

Status of the claims:

With the above amendment, claim 1 has been amended and claim 3 has been canceled. Claims 4-10 have been added. Thus, claims 1, 2, and 4-10 are pending and ready for further action on the merits. No new matter has been added by way of the above amendments. Support for the amendment to claim 1 comes from page 8, lines 22-23. Support for new claim 4 comes from page 6, lines 1-6. Support for new claim 5 comes from page 5, lines 1-2. Support for new claim 6 comes from page 5, lines 8-11. Support for new claims 7 and 8 come from page 6, lines 22-28. Support for new claims 9-10 come from page 7, lines 21-24. Reconsideration is respectfully requested in light of the following remarks.

Rejections under 35 USC §103

Claims 1-3 have been rejected under 35 USC §103(a) as being unpatentable over Iwahara '732 (US Patent No. 4,904,732) in view of Kimura '050 (US Patent No. 5,319,050).

This rejection is traversed for the following reasons.

Iwahara '732 fails to disclose a paraffinic process oil.

Present Invention

The present invention, as recited in claim 1, relates to a room temperature curable composition comprising

(A) 100 parts by weight of a saturated hydrocarbon polymer having a number average molecular weight in the range of 500 to 50,000 and bearing at least two hydrolyzable silyl groups at an end of the backbone and/or an end of a side chain per molecule,

(B) an organic compound having at least one C=O group in a molecule, in such an amount as to give 0.001 to 1 mol of the C=O group per 100 parts by weight of polymer (A), and

(C) an organic compound having at least one NH_2 group in a molecule, in such an amount as to give 0.001 to 1 mol of the NH_2 group per 100 parts by weight of polymer (A), components (B) and (C) being selected such that the C=O and NH_2 groups in the respective components are reactive with each other

(D) a paraffinic process oil.

Disclosure of Iwahara '732

Iwahara '732 discloses an isobutylene polymer having at least one silicon-containing group cross-linkable by the formation of a siloxane bond. The isobutylene polymer is curable at ordinary temperatures and is said to exhibit excellent

weatherability, water-resistance, heat-resistance, and is said to have excellent electric isolation and gas impermeability.

Iwahara '732 fails to disclose a paraffinic process oil.

Disclosure of Kimura '050

Kimura '050 discloses a condensation-curing type curable composition which comprises a diorganopolysiloxane or polyoxyalkylene blocked by a hydrolyzable silyl group at both terminal ends of its molecular chain as a base polymer, in which a carbonyl group-containing organic compound and an amino group-containing organic compound are compounded. The composition is said to be capable of forming water through dehydration condensation between the carbonyl and amino groups, simultaneously with curing of the composition by moisture in air. The formation of water is said to offer marked improvements in fast-curing properties and in depth curing properties.

Kimura '050 fails to disclose a paraffinic process oil.

Removal of the Rejection over Iwahara '732 in view of Kimura '050

One of the objects of the instant invention is to provide a room temperature fast curable composition of the condensation curing type which is improved in curability, especially in fast curing at room temperature and curing to depth.

It has been found by the inventors of the instant application that blending (A) a saturated hydrocarbon polymer having a number average molecular weight in the range of 500 to 50,000 and bearing at least two hydrolyzable silyl groups at an end of the backbone and/or an end of a side chain per molecule, with (B) an organic compound having at least one C=O group and (C) an NH2 group-containing component wherein (B) and (C) are selected so as to be reactive with each other, leads to a room temperature fast curable composition of the condensation curing type which is improved in both fast curing at room temperature and curing to depth.

The inventors have found that in the composition comprising the saturated hydrocarbon polymer (A), organic compound (B), and organic compound (C), a crosslinking reaction takes place between a hydrolyzable silyl group at an end of the backbone and/or a side chain of the saturated hydrocarbon polymer (A) with air-borne moisture, and in parallel therewith, a dehydration condensation reaction takes place between compound (B) and compound (C) according to the following scheme (I)

$$R_2C{=}O + H_2NR' \dashrightarrow R_2C{=}NR' + H_2O \quad (I)$$

wherein R and R' are organic groups. These reactions allow the crosslinkling reaction to proceed with the water generated in

depth within the composition as well. As a result, the inventive composition is improved in fast curing and also drastically improved in deep curing. Additionally, the composition has good stain resistance and durability.

This also overcomes the problems of water separation and a decline of workability due to increased thixotropy as found in the prior art compositions wherein water is added as a deep curing agent.

Moreover, the use of a paraffinic process oil can give excellent heat resistance without injuring the fast and deep curing, as is shown in the attached 37 CFR §1.132 declaration.

Iwahara '732 fails to disclose or suggest the fast curing of the present invention even though the base polymer of Iwahara '732 is consistent with that of the instant invention. One cannot deduce from Iwahara '732 that fast curing can be attained by using components (B) and (C) of the invention in combination with the saturated hydrocarbon polymer. Moreover, Iwahara '732 also fails to disclose or suggest the use of a paraffinic process oil as is claimed in the instant invention. Although Iwahara '732 does disclose the use of polybutene, etc., the use of polybutene imparts unexpectedly inferior heat resistance than the paraffinic process oil used in the instant invention. Please see the attached 37 CFR §1.132 declaration.

The deficiencies present in Iwahara '732 are not made up by Kimura '050. Kimura '050 discloses a condensation-curing composition. Although Kimura '050 appears to disclose the components (B) and (C) of the instant invention, the base polymer in Kimura '050 is much different from the base polymers disclosed in the instant invention.

In the present invention, the fast curing is attained by combining the components (B) and (C) to the base polymer of the instant invention. Kimura '050 does not remotely disclose this effect because Kimura fails to disclose the same polymer as used and claimed in the instant invention.

Moreover, Kimura '050 fails to disclose or suggest the use of a paraffinic process oil.

Accordingly, Applicants assert that the Examiner has failed to make out a *prima facie* case of obviousness with regard to the 35 USC §103(a) rejection over Iwahara '732 in view of Kimura '050. Three criteria must be met to make out a *prima facie* case of obviousness.

1) There must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings.

2) There must be a reasonable expectation of success.

3) The prior art reference (or references when combined) must teach or suggest all the claim limitations.

See MPEP §2142 and *In re Vaeck*, 20 USPQ2d 1438 (Fed. Cir. 1991). In particular, the Examiner has failed to meet the third element to make a *prima facie* obviousness rejection. Because neither Iwahara '732 nor Kimura '050 disclose or suggest a paraffinic process oil, they cannot render obvious the instant invention.

Even if a *prima facie* case of obviousness were made with regard to the rejection over Iwahara '732 in view of Kimura '050, which Applicants do not concede, the attached 37 CFR §1.132 declaration shows that the instant invention has unexpectedly superior properties to that of the disclosed art.

For the above reasons, withdrawal of the rejection is warranted and respectfully requested.

With the above remarks and amendments, it is believed that the claims, as they now stand, define patentable subject matter such that a passage of the instant invention to allowance is warranted. A Notice to that effect is earnestly solicited.

If any questions remain regarding the above matters, please contact Applicant's representative, T. Benjamin Schroeder (Reg. No. 50,990), in the Washington metropolitan area at the phone number listed below.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

BIRCH, STEWART, KOLASCH & BIRCH, LLP

By _____

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Attachment: Declaration

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

Claim 3 has been cancelled.

The claims have been amended as follows:

1. (Amended) A room temperature curable composition comprising

(A) 100 parts by weight of a saturated hydrocarbon polymer having a number average molecular weight in the range of 500 to 50,000 and bearing at least two hydrolyzable silyl groups at an end of the backbone and/or an end of a side chain per molecule,

(B) an organic compound having at least one C=O group in a molecule, in such an amount as to give 0.001 to 1 mol of the C=O group per 100 parts by weight of polymer (A), [and]

(C) an organic compound having at least one NH_2 group in a molecule, in such an amount as to give 0.001 to 1 mol of the NH_2 group per 100 parts by weight of polymer (A), components (B) and (C) being selected such that the C=O and NH_2 groups in the respective components are reactive with each other, and

(D) a paraffinic process oil.

Claims 4-10 have been added.